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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,179	12/06/2003	Yehuda Azenkot	034704-000049	8590
7590 Thelen Reid & Priest LLP Robert E. Krebs P.O. Box 640640 San Jose, CA 95164-0640			EXAMINER JUNTIMA, NITTAYA	
			ART UNIT 2616	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/729,179

Applicant(s)

AZENKOT ET AL.

Examiner

NITTAYA JUNTIMA

Art Unit

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 25-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 25-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to the amendment filed on 3/17/2008.
2. Claims 1 and 25-35 are pending.
3. Claims 28-35 are rejected under 35 U.S.C. 112, first paragraph.
4. Claims 1 and 25-35 are rejected under 35 U.S.C. 112, second paragraph.
5. Claims 1 and 25-27 are rejected under 35 U.S.C. 102(e).
6. Claims 28-35 are rejected under 35 U.S.C. 103(a).

Specification

7. The amendment filed 3/17/2008 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: a program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method as claimed in claim 28, and a control computer programmed to carry out a process included in a CMTS as claimed in claim 32.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Objections

8. **Claims 1, 28, and 32** are objected to because of the following informalities:
 - in claims 1 and 28, line 14, "higher or lower than underperformance and over

performance limits” should be changed to “higher than underperformance limit or lower than overperformance limit” to make the claims more clear;

- in claim 32, line 15, “higher or lower than underperformance and over performance limits, respectively” should be changed to “higher than underperformance limit or lower than overperformance limit” to make the claim more clear.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 28-35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain the following subject matters which were not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention: a program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method as recited in independent claim 28, and a control computer programmed to carry out a process included in a CMTS as recited in independent claim 32.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 25-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In **claims 1, 28, and 32**, since only generic "error rate" is monitored, it is unclear why the CMTS would send a message to the CM whose "bit error rate" has become too high or too low to cause the CM to switch the burst profile. Therefore, the claims are vague and indefinite.

In **claims 26, 30, and 34**, since only the "byte error rate" is monitored, it is unclear why the CMTS would send a message to the CM whose "bit error rate" has become too high or too low to cause the CM to switch the burst profile. Therefore, the claims are vague and indefinite.

In **claims 27, 31, and 35**, since only the "packet error rate" is monitored, it is unclear why the CMTS would send a message to the CM whose "bit error rate" has become too high or too low to cause the CM to switch the burst profile. Therefore, the claims are vague and indefinite.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. **Claims 1 and 25-27** are rejected under 35 U.S.C. 102(e) as being anticipated by Hou (US 6,898,755 B1).

Regarding **claims 1 and 25-27**, as shown in Fig. 5, Hou teaches a process comprising:

Gathering data about each cable modem (CM) in a group of CMs coupled to a cable modem termination system (CMTS) through a distributed transmission system (step 100, the CMTS maintains the performance statistics of each CM, col. 7, lines 11-14).

Dividing said group of CMs up into logical groups based upon CM type and/or throughput ability (in steps 106-114, the CMTS determines for each CM whether the CM is dynamic burst profile mode capable and if so an associated burst profile is determined, and if the CM is not dynamic burst profile mode capable and associated burst profile per the current DOCSIS specification is determined, col. 7, lines 16-30).

Creating an upstream channel or logical channel on said distributed transmission system for each logical group of CMs, each upstream channel or logical channel having transmission characteristics optimized for a particular logical group CMs (three burst profiles are created for three logical groups of CMs that are dynamic burst profile capable mode and one burst profile per DOCSIS specification is created for logical group of CMs that are not dynamic burst profile mode capable, col. 7, lines 26-col. 8, lines 23).

Assigning the CMs in each logical group to the upstream channel or logical channel created for that logical group (steps 110 and 108, col. 7, lines 21-29).

Monitoring the bit/byte/packet error rate of transmissions from each CM, and if the bit/byte/packet error rate of any CM becomes higher or lower than underperformance and overperformance limits, sending a message to said CM whose bit/byte/packet error rate has become too high or too low causing each said CM which is overperforming or underperforming

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to switch to an upstream channel with a burst profile which is compatible with the CM modem type and suitable for more efficient communications of digital data between said CMTS and said CM (the CMTS must continue to monitor the performance of each CM and when a CM that is dynamic burst profile capable mode requests for bandwidth again, the CMTS will reassign appropriate burst profile to the CM based on the CM perform measurements which indicate “relatively” high and/or low on BER/codeword error rate/packet loss rate, col. 8, lines 23-65, col. 12, lines 49-col. 13, lines 15, see also col. 5, lines 52-col. 6, lines 6).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. **Claims 28-35** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hou (US 6,898,755 B1).

Claims 28-31 are program storage device claims containing the same limitations as recited in claims 1 and 25-27, respectively, and are therefore rejected under the same reason set forth in the rejection of claims 1 and 25-27, respectively with the exception that Hou does not teach that the method steps are implemented as a program of instructions executable by a machine and embodied in a program storage device readable by the machine.

However, an official notice is taken that it is well known in the art to implement a method/process as a program of instructions executable by a machine such as a computer and embodied in a program storage device readable by the machine such as a CD-ROM in order to enable the method to be portable and automatically executed by a machine. Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify the teaching of Hou such that the method steps would be implemented as a program of instructions executable by a machine and embodied in a program storage device readable by the machine as claimed in order to enable the method to be portable and automatically executed by a machine.

Claims 32-35 are CMTS claims containing the same limitations as recited in claims 1 and 25-27, respectively, and are therefore rejected under the same reason set forth in the rejection of claims 1 and 25-27, respectively with the exception that Hou does not teach that the CMTS comprises a control computer programmed to carry out the process.

However, an official notice is taken that it is well known in the art to include in the CMTS a control computer programmed to carry out a given process for automatic execution of the process without human error. Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify the teaching of Hou such that the CMTS would comprise a control computer programmed to carry out the process in order to provide an automatic execution of the process without human error.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NITTAYA JUNTIMA whose telephone number is (571) 272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on 571-272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nittaya Juntima/
Examiner, Art Unit 2616
6/20/2008

/FIRMIN BACKER/
Supervisory Patent Examiner, Art Unit 2616